

## Lec 2

Important topics in ch 1:

- Causal Loop diagram
- Stock Flow model

Problem: the difference between desired state and actual state. any problem has initial conditions.

\* Problem Symptoms:

- Fundamental solution → Come with time delay

\* problem ch/s: (dimensions)

- 1- problem can be decomposed or not
- 2- The solution steps accept undo or not
- 3- The solution is relative or absolute
- 4- The solution steps is path or state
- 5- The environment of solution and problem is predictable or not
- 6- The role of the knowledge
- 7- The role of the human

\* Types of Loops

- reinforced Loop → number of ~~posit~~ negative even
- balanced Loop → number of negative odd

\* 80 % problem can be solved by 20 % of causes